FLUIDICS-BALANCED FLUID BEARING

ABSTRACT OF THE DISCLOSURE

Radial loads and vibrations and axial loads on a rotor are balanced by a fluid bearing controlled by a self-regulating system that supplies fluid flow or pressure to the gap between the rotor and stator in response to signals of imbalance generated in the machinery itself. The resulting balancing force is thus created by fluidics, and in certain embodiments the sensing circuit is fluidics-based as well. This system provides enhanced flexibility and response time relative to conventional fluid bearings.